

### **Remarks**

Claims 1-20 are pending in the application. Claims 1-7, 13, 14 and 16-20 are rejected. Claims 8-12 are allowed, and claim 15 is objected to. By this paper, claims 1, 2, 13 and 14 are amended, claim 15 is canceled, and claim 21 is added. Based on the following, consideration of the amended and new claims, and reconsideration of the remaining rejected claims, are requested.

### **Claim Rejections—35 U.S.C. § 102**

The Examiner rejected claims 1, 7 and 13 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,991,257 (Zhao et al.). By this paper, claims 1 and 13 are amended to more particularly point out and distinctly claim the subject matter of the invention. For the following reasons, Applicants believe claims 1 and 13 to be in allowable form.

Amended claim 1 recites a side airbag apparatus for a vehicle that includes an airbag having a side aspect that includes a generally wedge shaped portion. As originally filed, claim 1 recited a side airbag apparatus for a vehicle having a generally wedge shaped rear aspect when the airbag is deployed. It was for this reason that the Examiner relied on Zhao et al. for the rejection, stating that Zhao et al. discloses an airbag having a generally wedge shaped rear aspect when deployed. Given the amendment to claim 1, Applicants submit that Zhao et al. does not anticipate or render obvious amended claim 1. Claim 2 as originally filed recited a side airbag apparatus for a vehicle that included an airbag having a side aspect including a generally wedge shaped portion. Because such a limitation now appears in amended claim 1, Applicants will address the references cited by the Examiner in the rejection to original claim 2. In particular, the Examiner relied on a combination of Zhao et al. and U.S. Patent No. 5,251,931 (Semchena et al.) in a rejection under 35 U.S.C. § 103(a). In particular, the Examiner relied on Semchena et al. as showing a side airbag having a generally wedge shaped side aspect as previously recited in claim 2 of the present application.

Claim 1 as amended does recite an airbag having a side aspect with a generally wedge shaped portion when the airbag is deployed; however, amended claim 1 contains additional limitations which distinguish it from Zhao et al., Semchena et al., or even a combination of the two. For example, amended claim 1 recites that the generally wedge

shaped portion includes posterior, top and bottom edges, and further that "at least a portion of the bottom edge extend[s] forward and upward from the posterior edge such that the airbag substantially covers an upper arm of an occupant of the vehicle seated adjacent the deployed airbag while inhibiting coverage of a lower arm of the occupant, thereby inhibiting loading on the thorax of the occupant...." In contrast to the invention as recited in amended claim 1, airbags illustrated and described in Semchena et al. include an edge that angles forward and upward, but does so in such a way that the airbag covers the entire arm and thorax region of the seated occupant. In fact, as stated in Semchena et al., [t]he airbag 32, when in its inflated or extended condition shown in FIG. 3, substantially fills the space between the door 16 and the hip 38 of the person on the seat 14." (Col. 3, ll. 8-11.) Thus, it is a goal of the safety apparatus disclosed in Semchena et al. to fill as much space as possible between a seated occupant and a door of the vehicle, including a position between the occupant's hip and the door. This is in contrast to the invention as recited in amended claim 1, which has a wedge shaped side aspect specifically configured to cover an upper portion of an occupant, while inhibiting coverage of a lower portion of the occupant. Therefore, Applicants submit that amended claim 1 is neither anticipated, nor rendered obvious, by the cited references. Claim 7 depends directly from claim 1, and therefore contains all of the limitations of amended claim 1, as well as additional limitations which further distinguish it from the cited references. Therefore, Applicants also submit that claim 7 is patentable over the cited references.

The Examiner objected to claim 15 as originally filed, but indicated that it would be allowable if rewritten in independent form to include all of the limitations of its base claim, and any intervening claims. As originally filed, claim 13 was the base claim for claim 15, and claim 14 was the only intervening claim. By this paper, claim 13 is amended to include all of the limitations of claim 15, and some limitations from intervening claim 14. Accordingly, claim 15 is canceled. Applicants believe that claim 13, as amended, is in allowable form.

#### **Claim Rejections—35 U.S.C. § 103**

The Examiner rejected claims 2 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Zhao et al. in view of Semchena et al. As discussed in detail above, Applicants believe amended claim 1 to be patentable over Zhao et al. and Semchena et al.,

alone or in combination. Moreover, claim 2 is amended by this paper such that it includes all of the limitations of amended claim 1, as well as additional limitations which further distinguish it from the cited references. Therefore, Applicants submit that claim 2, as amended, is patentable over the cited references. Claim 14 depends directly from amended claim 13, which, as described above, is believed to be allowable. Claim 14 is amended by this paper because, as described above, some of the limitations of original claim 14 are now included in amended claim 13. Thus, claim 14 includes all of the limitations of amended claim 13, as well as additional limitations which further distinguish it from the cited references. Accordingly, Applicants submit that amended claim 14 is patentable over the cited references.

The Examiner rejected claims 3, 6 and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over Zhao et al. in view of U.S. Patent No. 6,783,151 (Rasch et al.). The Examiner relies on Rasch et al. to teach a side airbag having a generally wedge shaped top aspect that narrows from back to front. In addition, Rasch et al. is relied on to disclose a vent for venting gas from the airbag, and to show that an airbag may form an angle of less than 30° with a longitudinal axis of a seat. Amended claim 1 is the base claim for claims 3-6, and amended claim 13 is the base claim for claims 18-20. Applicants maintain that the addition of Rasch et al. to Zhao et al. or any of the other cited references, does not render obvious either amended claim 1 or amended claim 13. Therefore, Applicants submit that claims 3, 6 and 18-20, which contain all of the limitations of their respective base claims, as well as additional limitations which further distinguish them from the cited references, are patentable over the cited references.

The Examiner rejected claims 4, 5, 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Zhao et al. in view of U.S. Patent No. 6,344,251 (Keshavaraj et al.). The Examiner relies on the Keshavaraj et al. reference to disclose the use of a polymeric material for an airbag having up to 840 denier and having inflation pressures as high as 50 lbs. per square inch (psi). Amended claim 1 is the base claim for claims 4 and 5, and amended claim 13 is the base claim for claims 16 and 17. As discussed in detail above, each of these base claims is believed to be patentable, and accordingly, Applicants submit that claims 4, 5, 16 and 17 are also patentable over the cited references.

**Allowable Subject Matter**

Applicants thank the Examiner for the allowance of claims 8-12. As discussed above, claim 15 is canceled by this paper, and all of its limitations included in amended claim 13, which also includes some limitations from original claim 14. Accordingly, Applicants believe that amended claim 13 and each of its dependent claims are allowable.

**New Claim**

By this paper, claim 21 is added as a dependent claim, depending directly from amended claim 1. In addition to having all of the limitations of amended claim 1, claim 21 further recites that the airbag is configured with a side aspect that is measurable on a test dummy, and further describes the side aspect in relation to the test dummy. This configuration of an airbag in accordance with the invention is fully described in the specification of the application as originally filed. Therefore, no new matter has been added. Because dependent claim 15 is canceled by this paper, Applicants believe that no fees are due for the addition of claim 21. The foregoing notwithstanding, please charge any fees or credit any overpayments as a result of the filing of this paper to Ford Global Technologies, LLC Deposit Account No. 06-1510. Based on the foregoing, Applicants request allowance of each of the pending claims.

Respectfully submitted,

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